

## Product datasheet

# Anti-Catalase antibody - Peroxisome Marker ab52477

KO VALIDATED

★★★★★ [8 Abreviews](#) [36 References](#) [6 Images](#)

### Overview

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<b>Product name</b>	Anti-Catalase antibody - Peroxisome Marker
<b>Description</b>	Rabbit polyclonal to Catalase - Peroxisome Marker
<b>Host species</b>	Rabbit
<b>Specificity</b>	<p>This antibody reacts with Catalase.</p> <p>Replenishment batches of our polyclonal antibody, ab52477 are tested in WB. Previous batches were additionally validated in ICC, IHC-P and IP. These applications are still expected to work and are covered by our Abpromise guarantee. You may also be interested in our alternative recombinant antibody, <a href="#">ab76110</a>.</p>
<b>Tested applications</b>	<p><b>Suitable for:</b> IP, ICC, WB, IHC-P</p> <p><b>Unsuitable for:</b> Flow Cyt</p>
<b>Species reactivity</b>	<p><b>Reacts with:</b> Mouse, Rat, Human</p>
<b>Immunogen</b>	Synthetic peptide corresponding to Human Catalase aa 50-150 (N terminal). (Peptide available as <a href="#">ab215573</a> )
<b>Positive control</b>	WB: TF1, Rat liver tissue, WT HAP1, HeLa, Jurkat, U251, U2OS, 9L, PC12 and RIE-1 whole cell lysates. IHC-P: Human liver tissue section.
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

### Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
<b>Storage buffer</b>	pH: 7.20 Preservative: 0.01% Sodium azide

	Constituents: 49% PBS, 50% Glycerol (glycerin, glycerine), 0.05% BSA
<b>Purity</b>	Protein A purified
<b>Purification notes</b>	Affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab52477 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

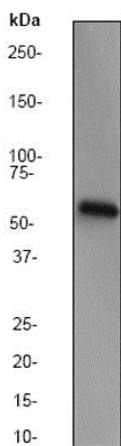
Application	Abreviews	Notes
IP		Use at an assay dependent concentration.
ICC		Use at an assay dependent concentration.
WB	★★★★★ (8)	1/1000. Detects a band of approximately 60 kDa (predicted molecular weight: 60 kDa).
IHC-P		1/100 - 1/250. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

**Application notes** Is unsuitable for Flow Cyt.

## Target

<b>Function</b>	Occurs in almost all aerobically respiring organisms and serves to protect cells from the toxic effects of hydrogen peroxide. Promotes growth of cells including T-cells, B-cells, myeloid leukemia cells, melanoma cells, mastocytoma cells and normal and transformed fibroblast cells.
<b>Involvement in disease</b>	Defects in CAT are the cause of acatalasia (ACATLAS) [MIM:115500]; also known as acatalasemia. This disease is characterized by absence of catalase activity in red cells and is often associated with ulcerating oral lesions.
<b>Sequence similarities</b>	Belongs to the catalase family.
<b>Post-translational modifications</b>	The N-terminus is blocked.
<b>Cellular localization</b>	Peroxisome.

## Images



Western blot - Anti-Catalase antibody - Peroxisome Marker (ab52477)

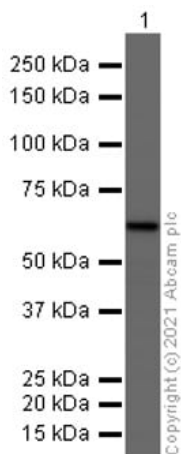
Anti-Catalase antibody - Peroxisome Marker (ab52477) at 1/1000 dilution + TF1 lysate at 10 µg

**Secondary**

Goat anti-rabbit HRP labeled at 1/2000 dilution

**Predicted band size:** 60 kDa

**Observed band size:** 60 kDa



Western blot - Anti-Catalase antibody - Peroxisome Marker (ab52477)

Anti-Catalase antibody - Peroxisome Marker (ab52477) at 1 µg/ml + Rat liver tissue lysate at 10 µg

**Secondary**

Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/50000 dilution

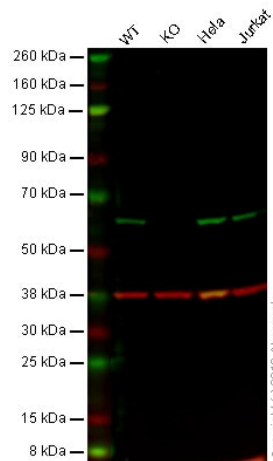
**Predicted band size:** 60 kDa

**Observed band size:** 60 kDa

**Exposure time:** 30 seconds

Gel type: MOPS

Blocking buffer: 2% BSA



Western blot - Anti-Catalase antibody - Peroxisome Marker (ab52477)

**Lane 1:** Wild-type HAP1 cell lysate (20 µg)

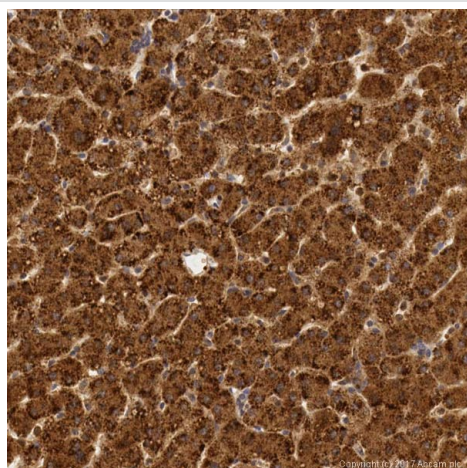
**Lane 2:** Catalase knockout HAP1 cell lysate (20 µg)

**Lane 3:** HeLa cell lysate (20 µg)

**Lane 4:** Jurkat cell lysate (20 µg)

**Lanes 1 - 4:** Merged signal (red and green). Green - ab52477 observed at 60 kDa. Red - loading control, **ab8245**, observed at 37 kDa.

ab52477 was shown to specifically react with Catalase when Catalase knockout samples were used. Wild-type and Catalase knockout samples were subjected to SDS-PAGE. ab52477 and **ab8245** (loading control to GAPDH) were diluted at 1/1000 and 1/10,000 respectively and incubated overnight at 4°C. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging.

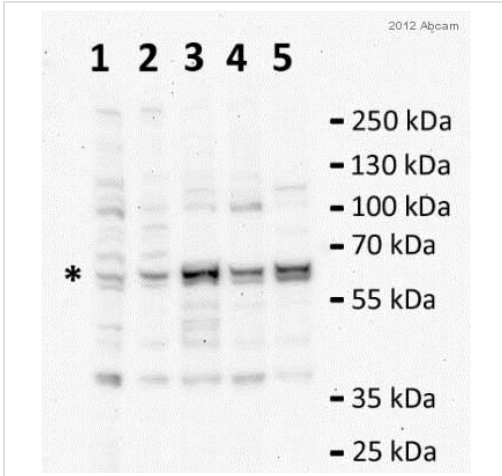


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Catalase antibody - Peroxisome Marker (ab52477)

IHC image of Catalase staining in a formalin fixed, paraffin embedded normal human liver tissue section\*, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab52477, 5µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

\*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre



Western blot - Anti-Catalase antibody - Peroxisome Marker (ab52477)

Image courtesy of an anonymous Abreview.

**All lanes :** Anti-Catalase antibody - Peroxisome Marker (ab52477) at 1 µg/ml

**Lane 1 :** Whole cell lysate prepared from 293T cells

**Lane 2 :** Whole cell lysate prepared from HeLa cells

**Lane 3 :** Whole cell lysate prepared from U251 cells

**Lane 4 :** Whole cell lysate prepared from Jurkat cells

**Lane 5 :** Whole cell lysate prepared from U2OS cells

Lysates/proteins at 20 µg per lane.

**Secondary**

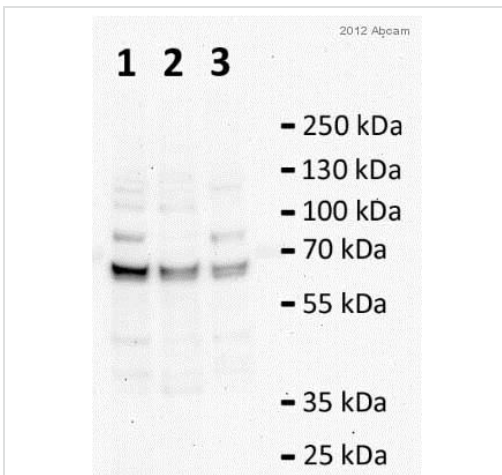
**All lanes :** HRP conjugated pig anti-rabbit polyclonal at 1/5000 dilution

Developed using the ECL technique.

**Predicted band size:** 60 kDa

**Observed band size:** 60 kDa

**Exposure time:** 5 minutes



Western blot - Anti-Catalase antibody - Peroxisome Marker (ab52477)

Image courtesy of an anonymous Abreview.

**All lanes :** Anti-Catalase antibody - Peroxisome Marker (ab52477) at 1 µg/ml

**Lane 1 :** Whole cell lysate prepared from 9L cells

**Lane 2 :** Whole cell lysate prepared from PC12 cells

**Lane 3 :** Whole cell lysate prepared from RIE-1 cells

Lysates/proteins at 20 µg per lane.

**Secondary**

**All lanes :** HRP conjugated pig anti-rabbit polyclonal at 1/5000 dilution

Developed using the ECL technique.

**Predicted band size:** 60 kDa

**Observed band size:** 60 kDa

**Exposure time:** 5 minutes

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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